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EDITOR: CHAS. CHASSAIGNAC, M. D.

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THE NEW YEAR.

We wish all of our patrons—advertisers, readers, subscribers—a Happy New Year. While it must be admitted that present indications do not point to a brilliant beginning we believe that, as soon as the necessary adjustment of conditions has taken place and a relative stabilization has followed, things will improve and the rest of the year may be reasonably prosperous.

At any rate we can all get a good deal out of 1921 if we go about it in the right way; if our aims are lofty and we strive earnestly, we can accomplish much; if we accept the results philosophically we can obtain at least a fair modicum of happiness and that we sincerely hope will be true in the case of all our friends.

Our endeavor during the year will be to make the JOURNAL more interesting and more useful to our clients and, with that end in view, we are planning new features which we propose to inaugurate from time to time. We invite suggestions and request the co-operation of our readers in order that this year may prove to be one of progress and profit both for them and for us.

PNEUMONIA.

The period of the year is approaching during which the menace of this dread disease is greatest in this section of the country. It is timely, therefore, to remind the members of the profession that theirs is the duty to do the utmost towards prevention by instructing their clientele as to the most important facts regarding the cause and spread of pneumonia.

The malady is an acute infection produced by a specific organism which may be transmitted by means of the hands or eating utensils through the mouth and, through the respiration, by means of coughing, sneezing and spitting. It is not due to cold weather of itself or to "catching cold", although chilling of the surface and continued exposure may increase the tendency to the disease owing to the lowered resistance induced. Hence people should be taught to avoid getting wet or chilled; to be sufficiently clad, yet to have plenty of fresh air; to avoid overcrowding and overheating; to cultivate cleanliness of person and of the things they handle; to avoid exposure to infection, hence to practice the isolation of patients sick with disease. If disease should appear, the importance of seeking early treatment and securing good nursing should be impressed upon the public and the physician should be prepared to administer the most scientific and approved treatment, avoiding fads and freakish methods.

While no sensationalism should be indulged in and the people should not be frightened, it is well to make them understand that pneumonia is one of the most serious diseases with which we have to contend and that it causes a large percentage of the deaths occuring here in the late winter and early spring.

By means of a conservative and rational campaign of education, somewhat on the lines outlined above, a good deal could be accomplished in the way of prevention and many valuable lives would be saved this season.

FANCY TATTOOING.

While it is generally recognized, for obvious reasons, that the practice of tattooing is capable of communicating disease; also that actual occurrences of such communication are on record, no-

tably cases of syphilis, it may be somewhat suprising to note that this same tattooing has been suggested as a means of prophylaxis!

The story of what prompted the suggestion is entertaining if not instructive.

A Japanese observer came across a man who presented a secondary syphilitic eruption of a pronounced character. So far, nothing strange. But this man had had, two years previously, a magnificent serpent tattooed on his arm, the back of the snake being of a rich blue color and its belly of a brilliant red. Again, you may think, nothing wonderful about this in a land wherein much tattooing of that description is practiced. The fascinating part of the story consists in the fact that whereas the tattooed arm was well covered with the specific eruption, including the blue back of the serpent, the latter's bright red belly escaped all maculation and papulation.

Now to solve the mystery. The Japanese observer is up on scientific research, if on anything. The customary and docile rabbit was called in. His scrotum was tattooed half and half with the two substances used to party-color the snake and a month later each side was injected with equal doses of a powerful spirochete infected substance; on the blue side, treponema-bearing ulcerations followed as thy should; on the red side, nothing.

If paper was not high we might try to entertain you at length with an account of the various experiments and tests which followed before a conclusion was reached; not only expense forbids, but we are sure you, dear reader, are most impatient to reach the solution of the riddle and we shall tell you at once: mercury, that's all. The red coloring was due to cinnabar which successfully protected the red tinted skin against invasion by the spirochetes.

With sufficient imagination it is not difficult to conjure up the artistic as well as prophylatic possibilities of fancy tattooing. The salts of mercury are numerous and their shades are various. Properly situated and skilfully executed such tattooed designs, it is suggested, might well yield efficient protection and prove to be a joy forever.

ORIGINAL ARTICLES

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

MEDICAL TREATMENT OF GALL-BLADDER DISEASES VERSUS SURGICAL.*

By DR. A. L. LEVIN

Franklin W. White of Boston, in a recent article on modern examination of the stomach, uses the expression, "we are in a transition stage; old methods are being discarded and new methods used." We can probably apply the same expression to the diagnosis and treatment of gall bladder diseases.

This paper is one of comment on the up-to-date method of tapping the bile exit region in the duodenum. The subject is rather an unfamiliar one to a number of medical men. My experience with this new method for diagnostic and therapeutic purposes for a period of over a year, applying it to a large number of cases with gall-bladder disease, has quite an encouraging feature and I am here to invite the attention of both the internist and the surgeon.

Einhorn must be acclaimed the pioneer who succeeded after many years of trying efforts to reach and explore the unknown field of the duodenum. He first described his method in 1909 and laid a great deal of stress on its importance from a diagnostic standpoint. He then remarked and repeated the same statement a year ago discussing my paper on duodenal lavage, that ordinary individuals where the gall bladder is not diseased have a clear golden yellow bile. If we find it turbid and greenish or thick, that indicates disease. Einhorn did not lay stress on draining of the gall bladder from a therapeutic standpoint, nor did he make mention about the possibility of studying the bacteria and probable usefulness of autogenous vaccine.

In May 1918, (*Med. Rec.*), Einhorn gave us an indexed chart of the various abnormal colors of the bile. Of 24 cases examined, 18 had cholecystitis with turbid bile, in 8 of those stones were

* Read before the Orleans Parish Medical Society Nov. 8, 1920 at the Miles Ampitheatre, Charity Hospital.

found by operation. In 1 case, the bile aspirated from the gall bladder during operation represented exactly that which had previously been obtained by duodenal aspiration. I can corroborate his statement; in several of my cases the surgeon obtained the same character of bile as I obtained by the duodenal tap.

In Oct. 1918, (*Med. Rec.*), Hemmeter confirmed Einhorn's observations in duodenal intubation and adds his own mite to it as follows: "green bile is pathologic, greenish yellow and turbid portends a diseased gall bladder, frequently containing gall stones. The bile may, however, be golden yellow notwithstanding the presence of gall stones." He further states that a marked diminution in the alkalinity of the duodenal contents is a significant sign of disease of the gall bladder. Normally, 100 cc. of bile should be neutralized by 5 cc. n/10 NaOH. If it falls below 5, we can assume that the pancreatic juice and the bile are prevented from entering the duodenum. A marked presence of mucus speaks for a duodenitis or inflammation of the gall-bladder and the bile ducts. Hemmeter speaks also of the bacterial side of the bile and the serum therapy, quoting Rosenow who claims that sometimes bacteria cannot be demonstrated in the bile, but can be isolated from the walls of the gall-bladder or the center of the stone.

Jutte's modification of the tube and the method as described in the Jr. A. M. A. (Feb. 22, 1913), has greatly facilitated the mode of entrance into the duodenum. In the last several years, the study of the secrets of the duodenal contents which contain vital fluids to maintain the human machine, became a vital subject in medicine.

In 1918, Meltzer explained his theory of contrary innervation as applied to the gall bladder and sphincter muscle of Oddis, that is when the gall-bladder contracts, the sphincter muscle opens up and vice versa. The entrance of food into the duodenum brings about such a physiological act and Meltzer demonstrated that the same can be accomplished by douching the region with a 25% magnesium sulphate. This theory appealed very strongly to Lyon of Philadelphia, also Rehfuss, who are to-day the principal enthusiasts in that field, the former especially. The new method, then, of the medical drainage of the gall bladder has become a reality. This paves the way for the invitation of the internist's and surgeon's attention.

That surgery of the gall bladder tract is not always an absolute

success, the surgeon himself will admit. Mayo's statistics show that 15% of operative cases are failures. Besides that, does a cholecystectomy affect in any way the efficiency of the rest of the digestive machine? Hohlweg, (*Prog. Med.* Dec. 1913) studied 42 cases of cholecystectomy and noticed a subacidity in 83.3. He then produced the same phenomena in dogs after the removal of the gall-bladder. Animal experimentation further proved, as stated by Rost, that the secretion of bile and gastric juice is affected greatly after a cholecystectomy, being two-thirds less in quantity. Kemp demonstrated that the bile is lower in alkalinity before reaching the gall-bladder. This would probably explain Hemmeter's contention that a marked diminution in the alkalinity of the duodenal contents is a sufficient sign of the presence of disease of the gall-bladder. Ohly, quoting Leed in Northwest Medicine, found that the loss of the gall-bladder in from 70 to 80% showed an acidity and achylia. He studied 39 cases of this type. In another group of 45 cases with occlusion of the cystic duct or considerable shrinking of the gall-bladder, there were 84% achylias and 14% below normal. Leed believes that there is probably a loss of a hormone which otherwise stimulates HCL secretion and duodenal acid chyme in turn stimulates the liver cells and the pancreas to greater activity.

In view of these facts which I briefly reviewed, the surgeon should follow a more rational procedure and preserve gall bladders that seem capable of functioning. Hemmeter is of the opinion that the so-called early operations in gall bladder disease have in general been given up and the special field of the surgeon is the chronic recurrent cholelithiasis, the infectious cholecystitis and chronic obstruction of the biliary ducts.

As to primary cause of gall bladder disease, the best authorities agree that the infection travels through the portal veins, through systemic blood, through the lymphatics, through the serosa from an infected peritoneum and last but not least, by an ascension of infection through the common bile duct from the duodenum.

Cases of catarrhal jaundice which we often see and which develop after a severe cold, acute gastritis and duodenitis, or after an attack of other infectious diseases, are caused, according to Lyon, by an extension from a gastro-duodenal catarrh. The pathology in such cases is explained in the following manner: The mucous

membrane at the ampulla of Vater becomes swollen and the exit is plugged up. Osler and Eppinger have found this to exist in the autopsy findings of individual reported cases. Such a change will often produce symptoms that might closely simulate an attack of gall stone colic. It is wiser to use the term "gall bladder trouble" when explaining to the patient, than feel confident that we positively deal with gall stones. The frequency of gall-bladder trouble and the difficulties we encounter in handling it are well known facts. This new method of draining of the gall bladder will solve the problem to a great extent. It is advisable that in any case with a history of gall bladder trouble, a duodenal tap should be made from a diagnostic standpoint. If one wants to ascertain the presence of bacteria, besides the color and consistency of bile, he can follow the method outlined by Lyon. The necessary articles are sterilized, the nose is sprayed with Dobell's solution, the throat should be gargled with potassium permanganate (1 gr. to the oz.), the stomach is washed with antiseptics and then duodenal intubation follows. I have modified the procedure and use my own so-called driving-in and massage method. It is not necessary to give the patient a quantity of water to drink when the tube is introduced; Einhorn is right in stating that it is not the water that drives in the tube but the muscular contractions of the stomach; I therefore stimulate muscular contraction. Putting the patient first on his back and massaging the stomach region from the cardia towards the pylorus, the gall bladder region is then massaged, the patient being instructed at the same time to take deep inspirations. Patient is then turned on the right side, the tube hangs over the edge of the bed and contents allowed to escape; the introduction of water by the syringe, it seems to me retards the flow of duodenal contents and bile because it drives the current backwards; it is not always necessary to use magnesium sulphate; another point that I have found out by experience is that sodium sulphate will accomplish the same as magnesium sulphate. If the flow does not start shortly, repeat the method of massage, give the patient half of glass of hot water to drink, instructing him to take deep inspirations. I found this method very successful in starting the flow of bile quickly. I introduce the tube through the nose which is less disturbing to the patient and use a tube of my own design which has a velvet eye, the openings are oval and larger than in the Jutte tube, there

is no metal bucket to cause irritation and the quality of the rubber is such that there is no need for a stylet. The method has been quite successful in a number of cases both from a diagnostic and therapeutic standpoint. It is being recommended already by our modern leading teachers in medicine such as Barker in his recent article in the *A. M. A. Jl.* I wish to report the following interesting case:

Mrs. M. H. 53, with a negative past history began to complain with nausea, lack of energy, loss of appetite and loss in weight. After 4 months of ill feeling, she began to suffer from violent periodic attacks of epigastric pain and finally daily vomiting. For a period of 6 weeks, she vomited daily after each meal. The pain was so severe that it would require large doses of morphia to quiet her and the attacks would come about twice a week. In the intervals, there was a constant soreness. On examination, a marked icteroid tinge of the skin and eyeballs was noted; the epigastrium was very sensitive to the touch and rigid. Blood pressure was low, temperature normal; urine was negative. Gastric analysis showed a subacidity. I saw the patient during an attack and the suffering was so great that it required 3 doses of morphia to quiet her. The evidences were very strong that I was dealing with a case of gall stone colic, advised an operation but the patient was reluctant in consenting, in fact I had the patient at the hospital for that purpose but was unable to secure a bed for her. I then decided to try duodenal tap, I did not succeed the first time, but on the second attempt using a 50% magnesium sulphate and hot water I succeeded in unplugging the ampulla of Vater; 8 ounces of a thick, black, molasses-like substance was drained off; patient was relieved immediately and she stopped vomiting. I continued the tapping for about a month every other day and it was interesting to note how the bile became clearer from time to time. Patient is at present the picture of health, has gained 30 pounds in weight and there is no recurrence of the former trouble for a period of eight months.

The following case demonstrates the efficiency of this method of treatment in a case of surgical drainage of the gall bladder with recurrence of symptoms.

Mrs. R. H. G. 39, for many years stomach trouble, pain cramp-like in character under the right costal arch, at times dependent on food with intervals of freedom from pain. After many months of futile treatment, a diagnosis of chronic appendicitis was made. She was operated on Sept. 24, 1918, appendectomy and gall-bladder drainage was done. For a period of about one year after operation, she was free from symptoms. About a year ago, she began to suffer from the same epigastric pain, nausea, heartburn, sour regurgitation and as a result of all this, a few nervous manifestations had developed such as insomnia, nervous eructation, etc. No loss in weight, appetite good but afraid to eat; bowels regular. Physical examination was negative except for a very sensitive spot at the upper third of the postoperative scar. There was a slight icteroid tinge to skin and sclera. Bile was obtained easily by the

duodenal tap which showed marked evidences of a still existing cholecystitis. The medical drainage treatment was instituted. Twelve treatments were given on alternating days with very marked improvement of all symptoms. The interesting point in the above case was the ease with which bile was obtained; in most of the treatments, bile started to flow freely in from 5 to 7 minutes, on one occasion 15 minutes. The nasal route was the method of choice.

A number of interesting cases treated by the above method with very satisfactory results could be cited, but for the sake of brevity I will submit the following table of a group of 22 cases:-

		Percentage.
Total number of duodenal taps for entire group...	220	
Diagnosis confirmed by operation.....	3	13
Improved, no recurrence	6	27
Not improved	2	9
Recurrence	3	13
Advised operation	2	9
Still under treatment.....	6	27

Cases which do not improve in spite of persistent treatment should be referred to the surgeon for a more radical treatment. This in itself is a point of diagnostic importance. Those cases in which there was a recurrence was undoubtedly due to the brief period of treatment which was evidently not sufficient. This brief resume, I trust, will stimulate enough interest among the local medical profession so that efforts will be directed towards making further observations in this new field of medical endeavor. I wish to use this medium to express my appreciation to Dr. E. D. Martin for his suggestions and encouragement to select the nasal route and modify the tube.

DISCUSSION.

Dr. Parham: I am very glad Dr. Levin has brought up this subject for discussion tonight.

I have been much impressed with the recent work on the duodenal tube, particularly with that of Dr. Lyon as detailed in the October number of the **American Journal of Medical Sciences.** After quite a large experimental and clinical work with the duodenal tube, he has become convinced, and I believe has demonstrated, that much can be done, both therapeutically as well as diagnostically, in diseases of the gall apparatus. I believe, indeed, that many of these cases can be withdrawn from the field of surgery by a judicious use of the duodenal tube.

I think, further, that this work has taught us that we should not be content with operation in these cases, dismissing our cases as cured,

when many of them will return later complaining very much as before operation. These cases should have the benefit of a duodenal investigation and, if necessary, appropriate treatment by duodenal lavage. Some of these do not get well, as shown by Lyon, because there is residual infection, and this may be benefited by the use of the Jutte tube. I think the cases reported by Prof. Lyon and those presented here by Dr. Levin tonight show unmistakably there is here an inviting field both diagnostically and therapeutically. I congratulate Dr. Levin on his persistence with this method in spite of much discouragement. Personally, I wish to thank Dr. Levin for the instructive manner in which he has presented a most interesting subject.

Dr. E. Denegre Martin: My own experience with the Jutte tube convinces me that there is much good in the procedure as described by Dr. Levin. I was a great sufferer from pylorospasm for many months, but nothing gave me more than temporary relief until I submitted to doudenal lavage. I was entirely free of the annoying symptoms after the second treatment and further relieved of gastric disturbances by subsequent treatment. Whether this method would have cured me entirely I do not know. I had my gall-bladder drained, not so much because I believed it necessary at the time, but because there was a history of heredity which made the symptoms doubtful and I wanted this doubt cleared up. I am thankful to report the special diet is a thing of the past and my health is not only restored but my gall-bladder intact, for which I am duly grateful. I can also testify to the great relief given patients by Dr. Levin, whose gall-bladders had been removed and who suffered from the most distressing and annoying symptoms. Be the criticisms what they may, the facts remain.

INFANTILE DIARRHEA.*

By JOHN SIGNORELLI, M. D.

Nothing basically new can be offered on this subject, and yet the mere fact that both the number of cases and the number of fatalities fail to show any appreciable diminution generally, can be taken as evidence that in spite of the enormous amount of effort on the part of the profession the problem generally speaking still remains unsolved. I must in the same breath qualify the statement to some extent lest misinterpretations be applied; infants or groups of children whose environments and feeding are efficiently supervised have shown and do show that not only the relative number of cases but also the mortality is reduced.

And herein lies the fundamental basis which is to point out to us the road to a solution of the problem of so-called Infantile

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* Read before the O. P. M. S., November 22nd, 1920.

Diarrhea. Looking into the matter of causative factors we find that failure to institute and maintain throughout the year a proper regime of feeding undoubtedly ranks foremost, for by this neglect there results even in the apparently well nourished child, a lowered resistance of the alimentary tract; closely applied to this I should say ranks the environments of our cases and the intelligence of the mother or guardian, for they have to do directly with the increased ease of introducing infection; and next I should place climatic influences and primary diseases of whatever nature, all of which by lowering the general comfort and body resistance of the baby throw in the deciding element necessary for the development of a true diarrhea.

Thus we see that the scourge of this Summer Diarrhea visits our baby population with such steady regularity that especially among the laity it has come to be accepted as an inevitable pass in the growing baby.

That the disease is infectious in character has been proved and clearly settled; several organisms or groups of organisms may be found, but from the above remarks it is clear that the diarrhea is in reality always a secondary condition—secondary to a definite disorder of milder and non-infective type; secondary to errors of feeding during the milder months; or, secondary to acute infectious diseases. The observations play an invaluable part in helping to decide what course should help to arrive at a solution, and I shall here state my experience, which tho limited so far, is encouraging indeed for ultimate effective teaching.

The St. Vincent Orphan Asylum has a baby population of about two hundred, ranging in age from birth to five years and here I found the records to show that each summer a percentage of cases entirely disheartening succumbed to the ravages of Infantile Diarrhea in its usually various manifestations. At the beginning of the summer 1919, I decided to divide my nursing babies into three classes; one to be fed on condensed milk; one on the routine found there when I took charge, namely, buttermilk; and the other class on percentage modification of whole milk. The babies were allotted in rotation so as not to discriminate in the matter of their previous health and development. My desire was to establish to what extent a particular type of food was responsible for the occurrence of this disease and for that reason all these babies were closely watched

and given immediate attention at the very start of the slightest nutritional disturbance. No case was permitted to go 24 hours without attention to management in curtailing the food supply and instituting therapy. Our efforts were amply rewarded in discovery by comparison of figures with previous years that our morbidity and mortality were reduced by 11% and 5% respectively. More striking still is the fact that these cases have been about equally distributed in all the three feeding classes.

These experiences are practically duplicated in a comparison of figures between the babies whose feeding is supervised in the ambulatory Clinics of the Child Welfare Association and those of sections of the City not so supervised. Here the figures show that the mortality for the rate for the former is 3%, against 11% for the latter. Speaking for the clinics I have under supervision I can say that the cases are not fed on any one set of formulas, or on any one type of food. So that here too, the results obtained cannot be credited to one or other food, but directly to supervision and training of the mothers and guardians.

Contrasted to this evidence, in a recent article* on the subject, I pointed out that statistics compiled from the records of the Charity Hospital show no decrease in the number of cases or deaths from this cause from 1914 to 1919 inclusive. It is not necessary to remind ourselves that cases coming to the Charity Hospital are not those fortunate with supervision or hygienic environment.

Such striking results, though the work yet has not extended over many summers, can not fail to illustrate that conservation of child life can be affected to an encouraging degree by our efforts against this disorder which is responsible for the loss of child life in a greater degree than any other condition we know of. They show that it is not in the adoption of a particular food, or of a particular set of formulas, but rather in education as to hygienic treatment, in the necessity of avoiding improper feeding at any stage of the life, and more important, in the prompt and efficacious management of every intestinal derangement in its incipience, that we can hope to find a solution of the problem.

The important question these results raise is whether our private patients can be made to benefit therefrom. Is it, or is it not possible to exert more time and effort in this direction? I, for

* Signorelli, John. Infantile Diarrhea, *The Charlotte Med. Jour.*, July, 1920.

one, am of the opinion that much can be done, and I shall feel amply repaid for my efforts in this talk if it will be answered by increased efforts on the part of the profession in the direction of proper instructions to mothers for correct feeding; for maintaining this correct feeding throughout the year and not wait for the resistance-lowering season to approach; and for impressing them with the danger of neglecting an apparently mild nutritional disorder and for the necessity of medical attention early in the disease.

DISCUSSION.

Dr. Fenner: I have been deeply impressed by the statistics the doctor has given in regard to the mortality in infants under 12 months of age. Years ago I had charge at St. Vincent's, and gave the most earnest care to those children, even preparing their milk formulas myself, but we had no such results as he appears to be getting. Apparently nothing startlingly new has been introduced in the methods of feeding as compared to the practice in my time, but the mortality then was practically between 95% and 100% in babies under a year old. By this I mean the final mortality, for we all know how infants taken sick with "summer complaint" may recover from a first or even a second attack, but finally succumb during September, or the early part of October. In my experience, practically every bottle fed baby less than a year old ultimately became a mortality.

Profoundly discouraged by my own results in this class of children, I investigated the results in other institutions, and was to some extent consoled by finding that their experiences were almost the same as mine. At the great infant asylum in New York, the Head Sister told me that until she introduced a general system of breast feeding for infants they all died. At the Asylum near Boston, which had recently been the subject of violent newspaper denunciation, an entire new staff of physicians, a corps of trained nurses, and a Walker-Gordon milk laboratory had been installed in the effort to improve the fearful death rate, but at the time I visited the institution the attendants were forced to confess to me that little had been accomplished. Inquiry of the Head Sister, who had formerly served in the Infants' Asylum in Albany, developed the fact that her experience had been identical there: the mortality was above 95%. I became convinced that institutional mortality was everywhere discouragingly high. I recognize that the educational efforts of the infant welfare associations has done much good, but I can hardly bring myself to believe that any such miracle has been accomplished as would appear from the statistics just given.

In connection with the spread of these infectious diarrheas in institutions, I recall a visit I paid years ago to the clinic of Prof. Heubner in Berlin. He had installed in some of his wards glass partitions between the babies' cribs, and claimed to have seen marked diminution in the spread of infections, particularly of the lungs, where these partitions were in use. We all know how such bed isolation was insisted upon in the army during the late war, and I am convinced that here we have one of the measures which might be well introduced in the prophy-

laxis of infectious conditions, whether pulmonary or diarrheal, in the young.

Dr. Hamilton Jones: I wish to express my appreciation of the paper and of the work of Dr. Signorelli, but to my mind too much stress cannot be laid upon the fact of "fly control." Swatting the fly and screening has a great deal to do with the suppression of the spread of summer diarrheas. In former years it was believed to be an air-borne disease, but we now realize it is largely a "fly-borne" disease.

A DEMONSTRATION OF THE TECHNIQUE FOLLOWED IN THE DETERMINATION OF THE BASAL METABOLISM RATE—INDIRECT METHOD USING THE BENEDICT PORTABLE UNIT.*

By HAMILTON P. JONES, M. D., Internist "Diagnostic Clinic" New Orleans.

The apparatus here shown which I purchased and have had in constant use since last spring was designed by Prof. Francis T. Benedict in charge of the Carnegie Nutritive laboratory at Boston, and, while it is an ingenious and beautiful instrument, there is not a patented part about it, and all that he has contributed has been donated to its users as a free gift out of hand, and I take this opportunity of giving him this credit and appreciation. The determination of the Basal Metabolism rate is the most recent example of the passing of purely scientific procedure into general clinical application, and it is hoped that it, one of the most difficult technically—will not be thrown into discredit by a neglect of the details essential to obtaining a true Basal Metabolism rate.

The average normal human temperature is about 98 3/5° F. whether he be at the North Pole, the Equator, at work or rest, manifestly varying amounts of energy are consumed—and heat produced—that are not recorded by the thermometer. The boiling point of distilled water in an open vessel at sea level is 212° F. no matter whether the boiling is produced by a small or large source of heat, one, three or ten Bunsen burners; but it is manifest the thermometer gives no information as to the amount of energy going through the water.

The glands of internal secretion have much to do with the rate of energy or heat production, especially the thyroid gland. Insufficient secretion causes a diminution in the rate of heat produc-

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* Read before the O. P. M. S., November 22nd, 1920.

tion—just as a low fire will cause the open pan of water to just simmer. A condition found in Myxedema. Sufficient secretion causes oxidation to go on at a normal rate, like the brisk boiling in the open vessel, a condition found in health. Excessive secretion causes the oxidation to go on so violently as to rapidly consume the food stuff taken in and the body reserves, similar to the violent boiling of a vessel of water on a too hot fire, a condition found in toxic goitre. There is no way to determine the energy used by the body except by determining the Metabolic rate.

The minimum heat production of an animal—12 to 18 hours after the ingestion of food and with the animal at complete rest is what is known as the Basal Metabolic Rate.

The minimum heat production may be determined directly by actual measurement by means of a Calorimeter, or indirectly by calculating the heat production from an analysis of the end products which result from oxidation within the organism—or specifically from the amount of oxygen used, and the corresponding amount of carbon dioxide produced together with the total nitrogen eliminated in the urine.

The importance of oxygen was well understood by Lavoisier who, in 1780, named and identified the gas; but only within the past decade, and especially since the close of the war has it been recognized that there was a comparatively fixed requirement for oxygen, and also for the vital capacity of the lungs, in direct proportion to the height and weight of the individual in health—and varying to a marked degree—in certain conditions of disease. The oxygen requirement varying most notably in diseases of the organs of internal secretion—especially the thyroid—and the vital capacity notably in pulmonary tuberculosis.

It has been found that for all practical clinical purposes that either the direct or indirect methods of Calorimetry give results so closely parallel as to make it a matter of equipment and convenience rather than one of outweighing merit of one method over the other. And as the value of Clinical Calorimetry is so tremendous, it is important that this method, giving good results—that will be most available to the greatest number of patients, is the method of choice.

Normal standards—naturally standards of comparison are essential—because it is necessary to know the Normal Basal Metabolic rate so that an abnormal one could be recognized. As a result

of this the unit taken was one square meter of skin surface. Naturally the skin surface of no two people is apt to be the same, so that Eugene F. Dubois and Delafield Dubois—after carefully measuring the skin surface of a great number of people of different ages, sexes, shapes and sizes found, that there was a sufficiently accurate relationship between the standing height and weight of a human body, to the skin surface, to enable them to construct a formula.

$$A = Wt + .425 \times Ht + .725 \times 71.84$$

A=the Surface area in Sq. C. M.
Wt=the weight in Kilograms
Ht=the height in Centimeters and
71.84 is a Constant

On the basis of this formula they constructed a height-weight chart, by means of which the surface area can be determined at a glance.

The skin surface area unit seems to be the most satisfactory unit yet put forward and upon it a series of normal basal metabolic rates have been established for the various ages and sexes.

It has been found that the basal metabolic rate is less for females than males and that in both sexes there is a lowering of the basal metabolic rate as age increases. It must of course be recognized that there is no inflexible standard for normal metabolism for any given age, weight, height and sex from which all normal individuals never vary, however, if they do materially they are the exception, as they would be should they vary normally, in heart rate, blood pressure or temperature, and we must recognize that there are such cases.

These exceptions are so rare, and the accuracy of basal metabolic ratings, when properly made, is so great that we must look for some pathological condition wherever there is a variation beyond say arbitrarily 10% either way.

So much by way of introduction and determination of standards. Now for the determination:

Post Absorption Period: Patient must have taken no food for at least twelve to eighteen hours, as the energy required by digestion is enough to upset the value of the observation; for that reason it is more convenient usually to make the patient report to the clinic in the morning. Muscular activity—the least muscular activity on the part of the subject causes an error in the reading

of the rate, so delicate and accurate are these determinations, and should they occur, note should be made of them and the work repeated if the effect of these movements cannot be evaluated.

Preliminary Rest Period: It is my custom to have subjects loosen articles of clothing and to rest on the table or couch, upon which they will be during the observation for at least thirty minutes before the test begins. It makes very little difference whether they are semi-reclining or laying flat, so long as they are at rest and comfortable.

Effect of body temperature: Any elevation above 90° F. so disturbs the rate that the determination is of questionable value and had best not be made, as so far no way to discount abnormal temperature has been devised.

Character of respiration should be normal and patient should be at mental rest as well as physical.

Records should be kept accurately and at the moment—to trust anything to memory is fatal—and checks should be made by duplication of tests.

The Benedict apparatus is a closed circuit device into which the patient breathes back and forth; this may be accomplished by use of a tissue mask, a mouth piece and nose clip or in various ways, as the determination is one of oxygen consumed. It has been found not necessary in general clinical practice to determine the urea, nitrogen or the CO_2 output—or respiratory quotient. Any leakage is charged up to the patient, and as the apparatus is filled with pure oxygen—the slightest loss is correspondingly magnified—so the machine must be tested for leaks. The connection having been made the motor driving the force fan is started, and the three-way valve having been closed, the oxygen driven from the gasometer bell—which rises up and down with each respiratory movement—through a jar of soda-lime which absorbs the CO_2. From the soda-lime jar it goes to the mouth piece, and then back to the bell under a pressure equal to about ¾-inch of water.

As air is inspired the bell goes down, as it is expired the bell goes up, and, as the end of expiration is more regularly recorded, all observations begin and end at the end of expiration.

This gasometer is calibrated in ccs. So that the number of c. c. in the bell is noted at the beginning of the period of usually ten minutes, and at the end. The difference between these two readings gives the amount of oxygen consumed.

In the Benedict apparatus it is only necessary to make two cor-

rections—one is for temperature and the other is for barometric pressure that is to refer the gas to a temperature of O°C—and a barometric pressure of 760 M. Metres of Mercury.

Inasmuch as we are at sea level in New Orleans I have found that our barometer stands close enough to 760 M. M. of Mercury to render the correction negligible.

Our temperatures are high enough especially in summer to cause a necessary correction of as high as 10%. This is effected in the following manner. According to "Charles' Law," which states that, provided the pressure remains constant, the volume of a gas will change 1/273 of its volume at O°C for each degree C. of change of temperature.

Protein Respiratory Quotient is .80. Fat Respiratory Quotient is .71.
Carbohydrate Respiratory Quotient is 1.00 average .84.
Calorific value of 1 liter of Oxygen when Protein is burned is 4.485.
Calorific value of 1 liter of Oxygen when Fat is burned is 4.686.
Calorific value of 1 liter of Oxygen when Carbohydrate is burned is 5.047.
Calorific value of 1 liter of Oxygen Mixed diet is burned is 4.85.

For a respiratory quotient of .84 the calorific value of 1 liter of oxygen is 4.85 using the value of the non-protein respiratory quotient. Therefore, the number of calories produced per hour will be the number of liters of O consumed per minute x 60—x 4.85. This divided by the number of square metres of skin surface gives the number of calories produced per hour per square meter of skin surface or the basal metabolism. This compared with the normal for sex and age gives the basal metabolism rate. The heat production or metabolic rate, is concomitant with work accomplished; it is an indication of the rate of oxidation and cannot be estimated by taking the temperature of the subject.

Illustration Record of a Supposed Case of Myxedema.

Name: Mrs. K. Height, 60 ¾ inches (154 cm.) Age, 60 yrs. Service, Charity Hospital. Weight, 206 lbs. (93.7 kg.) Sex, Female. Diagnosis: Myxedema. Surface area, 1.92 sq. m. Normal cal. per hour, 34; T. 98; P. 84; R. 24; BP. 220 / 130

Spirometer No. 72

	Period A.		Period B.		
Spirometer Start	7400	Start	6200	Barometer	760 C. M.
Spirometer End	3800	End	3800	Temperature	30° C.
Diff.:	3600		2400	Temperature	30° C.
Time, 9 minutes.		Time, 6 minutes.			

Average cc O consumed per min., 400 multiplied by Barom. and Temp. Cor., 9 is 400 x 9=360.

Divide by Sq. MS. A. is 360 divided by 1.92=187.5.

Multiplied by Fact 4.825 is 187.5 x 4.85=.929375.

Multiplied 60 Minutes per hour .9293 x 60=55.76.

Cal. per sq. m. per hr., 55.76.

This divided by average number of calorics per sq. metres of skin surface per hour for age and sex gives the fraction $\frac{55.76}{34}=\frac{164}{100}$ which is 164% of normal—164 minus 100 equals plus 64% which is Basal Metabolic Rate of this patient, in other words she was consuming 64% more oxygen per square meter of skin surface per hour than is normal which absolutely and definitely contradicts the clinical diagnosis of Myxedema. Is it really a case of Hyperthyroidism.

I have very greatly simplified the calculation and done away entirely with the use of logarithms by the use of the Slide Scale which enables by its use in conjunction with the tables mentioned above, the calculation to be made in three or four minutes after the data is in hand, so that the actual time of making the basal metabolic rate itself is rarely over fifteen minutes. The scale does not permit one however to calculate the skin surface by the formula; to do that requires the use of logarithms but it is comparatively infrequent that the charts do not cover the case in hand.

To show the usefulness and versatility of the application of basal metabolic ratings, I have appended the following brief notes.

Diagnosis	Age	Color	Sex	Ht.	Wt.	Basal Met. Rate	Thyroid Enlarged
1 Pellagra	41	W	M	165	48.2	44%	Yes
2 Pellagra	23	C	F	157	38.7	53%	Yes
3 Pellagra	32	C	F	158	41.1	5.5%	Yes
4 Pellagra	18	C	F	172	33.2	4.2%	Yes
5 Pellagra	34	W	F	164	59.6	13.5%	Yes
7 Pellagra	39	C	F	162	31.8	11%	Yes
1 Hyperthyroidism	20	C	F	154	33.9	76%	Yes
2 Hyperthyroidism	42	W	F	153	41.4	6.8%	Note
3 Hyperthyroidism	43	C	F	160	57.7	83.5%	Yes
4 Myxedema	60	W	F	154	93.7	60%	Yes
5 Myxedema	37	W	F	153	115.7	66%	Yes
1 Paget's Dis.	50	W	F	153	35.	26%	No
1 Diabetes	33	C	F	171	95.5	14%	No
1 Suspected Acromegaly	Normal—Not a Case.						No
1 Neurasthenia	34	W	F	155	50.5	49%	No

Note. (2) This case was treated 12 years ago with the X-ray for Hyperthyroidism and was severely burned about the throat, the scars of which she still bears. All these cases were taken from the wards of the Charity Hospital.

Old Age.

It has long been known that the basal metabolism rate declines with the advance of years. With the end in view of determining the effects of small doses of the iodides on very old people, that is over 65 years of age, I made, three months ago, basal ratings on twenty old men and women whom I then put on small doses of the iodides—with the apparent effect of slightly increasing their basal metabolism rate, probably through the stimulating effect of iodine on the thyroid gland. This may in a measure account for the benefit so often noted in the administration of this drug to old people.

Syphilis.

It very frequently happens that we are much disconcerted by a negative Wassermann in cases of heart disturbance, especially in the young, where we had rather confidently expected it to be positive. Much light is thrown on these cases by a basal metabolism determination, a normal rate pointing, in the absence of any focal infection, to the necessity of not only supporting measures, but the need of active anti-syphilitic treatment.

Neurasthenia.

It often happens that cases present themselves with various symptoms, especially of tachycardia, trembling and nervousness where it might be difficult to determine whether it is a case of neurasthenia or thyroid disturbance, or a case of cardio-vascular syphilis or thyroidism. The basal metabolism rating will often clear the diagnosis.

Although it must be remembered that two or more pathological entities may co-exist. The following case was taken from one of the neurological wards, with a diagnosis of neurasthenia: Mrs. S., aged 34; the thyroid while enlarged was not markedly or notably so; the basal metabolism rate was found to be + 49%. In reality it was a case of toxic goitre.

Focal Infection.

Naturally in every case, no matter what its nature, may be foci of infection should be cleaned up. And it is particularly interesting to note the improvement in the basal metabolism rate in cases

of hyperthyroidism after the removal of diseased tonsils, bad teeth, etc.—this does not occur in all cases—and I have never seen the removal of focal sources of infection entirely restore the metabolic rate to normal, but their removal if possible should always be undertaken before the thyroid is treated. It is not uncommon to see the rate fall 10%, with a corresponding amelioration of the symptoms.

PELLAGRA.

Much has been written concerning this disease, and it has been more discussed and possibly almost as vigorously studied and worked on in the south as malaria.

The concensus of opinion of a very strong body of men is that it is essentially a dietetic disease, brought about largely by a diet deficient principally in vitamins leading to faulty metabolism. While most extensive feeding experiments were carried on, with both balanced and unbalanced rations suitable and unsuitable, overabundant and deficient, and the metabolism studied in a broadly dietetic sense. I believe that I am the first one to publish any data on the basal metabolism rates of individuals suffering with this disease—and the results have been most interesting and I think illuminating.

Here we have seven cases of pellagra all with a basal metabolism rate above normal ranging from 53% to 42%. Three had positive Wassermann reaction, two negative, and in one it was not reported.

Medication: Full diet, rest in bed in 2; Fowler's Sol. and special diet, 1; Quinine hydrochlor, Sod. cacodylate, Full diet, 4.

It will be noted that the administration of quinine was apparently without effect on the metabolic rate.

Judging from these observations—even though they be on a limited number of cases, seven in all—it must be remembered that they were the only seven available and therefore could not have been picked; it must be recognized that there must be an unusually high incidence of thyroid disturbance in this disease, which is of an active character as shown by the uniformly increased basal metabolism rates found.

The question of course arises, and it is not solved in my mind, as to whether the thyroid disease has to do with the pellagra or the pellagra acting as a focal infection would predispose to a thyroid gland complication.

This opens up the whole subject of pellagra again from an en-

tirely new view point and also points to the advisability of trying out the effects of therapeutic application of the X-ray to the thyroid gland just as would be followed in the X-ray treatment of exophthalmic goitre.

HYPERTHYROIDISM.

Basal metabolic rate invariably increased during active stages of the disease, to be followed gradually, in those cases medically treated or allowed to get well spontaneously, by a lowered rate, at times to below normal after the passage of years, although the gland may be enormously enlarged, and the rate may become so lowered secondarily as to call for the administration of thyroid extract. This is also true of post operation and over treated X-ray cases.

The thyroid disease metabolism rate raises directly with the degree of activity of the secreting portion of the thyroid gland. Therefore toxicity (hyperthyroidism) is indicated by the clinical symptoms rather than the size of the gland. A small gland may be highly toxic, while a gland large enough to cause unsightliness and pressure symptoms may not be secreting enough to carry on the normal metabolism of the body, in other words, there is nothing to gauge the nature and character of your thyroid condition except by the clinical phenomena produced or the making of a basal metabolism determination, and the latter is one of the few procedures in clinical medicine which gives the answer in percentages, comparable, one case with another, and the results of which are so far removed from the peradventure of a doubt—no one has the right to treat a case of goitre trouble without making basal metabolism determinations. I recently made a 4 months post operative basal metabolic rating on a man who had been operated on for hyperthyroidism—the rate was—16.5%. Microscopical diagnosis was adeno-carcinoma of the thyroid. Does not this point to the necessity of a consideration of possible malignancy in a rapidly growing thyroid mass with a low metabolic rate?

Even with the greatest experience and clinical acumen the best of us are shown wrong in clinical diagnoses of thyroid conditions, and there is no doubt that many a thyroid has been removed to the definite hurt of the patient; that many a case of toxicity has been made worse by the administration of thyroid extract, or iodine; that many a case of hypothyroidism (myxedema) in mild form has gone unrecognized—and that these poor people have been allowed

to drag along without the energy to undertake anything unusual, except to be called neurasthenic or what not, finally to drift into some don't worry, rest advising cult.

Certainly no surgeon has the right to operate without knowing what he is operating for nor has any one the right to use the X-ray any more than the knife until it is known what it is being used for in thyroid disease, and I will go further and state that no one has any right to treat any condition of the thyroid whatsoever without knowing what the basal metabolic rate is.

Following the work of others I have treated a number of cases of hyperthyroidism with the X-ray—always regulated by basal metabolism control readings—with, in properly selected cases, results that seem to be less attended with danger and satisfactory in outcome as those operated upon.

SOME SUGGESTIONS ON THE USE OF QUININE IN THE TREATMENT OF MALARIA.*

By DR. O. W. BETHEA

Foreword. In reading the literatures on this subject, and in discussing it with many physicians from various sections, and observing the administration of quinine in hospitals, it has seemed to me that there was room for a brief presentation of some phases of this matter that might prove of interest—at least in stimulating discussion and encouraging further investigations.

I will not try to present the whole subject, but only certain points about which I wish to make suggestions.

Specific value of Quinine alone. During the recent war, some reports were sent in from Salonica and other points, claiming that quinine would not cure some cases of malaria observed. It is hardly fair for us to sit over here and dispute this, and claim that they were using an inferior product, or, that an insufficient amount was ordered, or that the patients did not take it. Bass, however, has conclusively proved that quinine alone, properly administered, is absolutely specific for all forms of malaria known to this section of the world.

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* Read before the O. P. M. S., November 22nd, 1920.

Duration of Treatment. The various writers have uniformly agreed that there should be two periods of treatment:

1st. A period of intensive treatment lasting about three days, or until the subsidence of symptoms. This last clause is often overlooked and is one of the points I wish to emphasize. In cases characterized by tertian or quartian periodicity, I suggest continuing the intensive treatment through two chill days and until one period has been entirely missed, both as to chill and fever.

2nd. The period following the first few days of intensive treatment.

I think that we have no better plan than that worked out by Bass. That is, that this should be for a minimum of eight weeks and longer if indicated by clinical evidence, laboratory findings or a history of chronicity with a persistent tendency to recurrence.

Amount to administer. The statement is now rather uniform, that for the period of intensive treatment, 30 grains per day of a salt of quinine is the proper average dosage.

For children many tables have been submitted, based on age. My contention is that these suggestions are taken too literally, and the overlooking of an important consideration may account for many failures.

The idea of the treatment is to sterilize the blood (so far as the plasmodia are concerned), by producing a certain concentration of quinine in this media. So much quinine to so much blood. It would seem therefore, that the only criteria for arranging dosage is the amount of blood to be sterilized. If two buckets of polluted water were brought to you to be sterilized, and one bucket contained twice as much as the other, you would put in it twice as much of the disinfectant. We can consider the circulatory system of our patients as containers filled with blood, and age, sex, or any other such factors should be entirely eliminated from consideration. If a child brought you a bucket of polluted liquid you would not ask the age of the child, but, the amount of the material to be treated.

It reminds me of Dr. Feingolds suggestion on history taking, "When a man comes to you with a cinder in his eye, don't ask him what his grandfather died of."

In administering the drug to children the usual plan has been to apply Young's rule, which would give a child a year old, one thirteenth of the average dose, while a child of this age averages about one-seventh of the adult weight. Bass, Holt and others have

called attention to the frequency of the failure of treatment in children being due to insufficient dosage and have presented tables calling for larger doses for the various ages stated. Why the age at all?

As 30 grains of quinine is the proper daily dose for an average adult (about 150 pounds), I would suggest that we try to remember quinine dosage, as one grain for each five pounds of body weight, allowing for character of tissue anasarca, etc., if necessary.

There seems to be no evidence of any material difference in blood proportion in women and children as compared with men, so this rule may apply for all classes.

For the second stage of treatment, instead of arbitrarily remembering fixed adult and children dosage, I suggest one grain for each 15 pounds of body weight.

Salt of choice. The sulphate is used many times as much as all other salts put together. In commerce, the word quinine means quinine sulphate. Many authorities recommend it as "answering every purpose.'

In administering a salt of quinine the quinine content is the part of value, and the acid radical is considered valueless except as rendering the alkaloid more readily soluble. Quinine sulphate is so sparingly soluble (1 to 725), that Bastedo and others urge that it be given after meals so that the acidity of the stomach contents may facilitate its solubility.

I wish to recommend the hydrobromide for oral administration for the following reasons:

It is readily soluble, (1 to 40).

It contains a full average per cent of the alkaloid, (76% as compared with 74% in the sulphate).

The acid radical of the salt is not entirely lost as the patient gets some benefit from the bromide radical. The bromides are the most efficient antidotes to the nausea and nervous phenomena of cinchonism, and it has seemed to me, that these unpleasant symptoms were some less where this salt is employed.

For intravenous administration a more soluble salt as the dihydrochloride is of course, indicated.

Time of administration.

As Bass, Henson, Heiser and others have conclusively shown that the sexual forms in all stages of their development are affected by quinine, it is to be regretted that many still do not begin the

administration of the drug as soon as the diagnosis is made, but wait until a certain number of hours before the next expected paroxism.

By beginning treatment at once the patients tissues are conserved, the next paroxism may be materially lessened in severity or entirely missed.

The administration during the period of intensive treatment may well be illustrated by selecting from the following articles.

Bass gives 10 grains, morning, noon and night.

Deaderick recommends 2 or 3 grains, every 2 or 3 hours, during the entire period, (day and night).

Solis-Cohen recommends two large doses, 8 and 4 hours before the expected chill hour.

The old plan still followed by many, is to begin about 6 hours before the expected chill, and give 5 grains every hour for 6 doses.

These, of course, being doses for the average adult.

I suggest individualizing these cases.

The plan of Bass certainly meets the requirements of the vast majority of cases.

I have found the plan of Deaderick of considerable value in certain cases with a tendency to cinchonism and in pregnant cases.

I have found some cases with an intolerance of the drug, particularly where nausea and vomiting were factors, when I felt that I secured better results by the fourth method mentioned. This resulted from being able to select one period of the 24 hours during which, rest in bed, ice bags, and empty stomach, and liberal doses of sedatives could be employed, when this would not have been practical for the whole time.

For continued treatment, often the first few days we find two plans still in use. The daily administration and the "Quinine days" of large dosage once or twice a week with no medication the intervening days. The bulk of evidence seems to favor the daily dosage and this is now usually given in one dose at bed time.

Repairing the damage done by the disease.

When a house partly burns, those concerned are not satisfied with putting out the fire, but repair the damage. I feel that the tendency is too much to cure the disease only, and to neglect to lend scientific aid in repairing the damage that has been done.

Cinchonism. There seems to be a tendency to regard this as a

matter of course. Much can be done to relieve the distressing phenomena of this condition, and I would particularly urge careful diet and the more liberal use of bromides.

DISCUSSION.

Dr. E. L. King: Dr. Bethea mentioned the cautious use of quinine in treating malaria in pregnant women. The authorities are divided on this question. The concensus of opinion is that quinine has little or no effect on the pregnant uterus, except during labor, at which time it occasionally seems to strengthen the uterine contractions. In our Obstetrical Service at the Charity Hospital we have treated quite a few pregnant women suffering from malaria and have not caused premature labor by the use of quinine.

We have adopted a system of combining ten drops of tincture of opium with each dose of quinine, on the theory that any irritation set up by the quinine would be counteracted by the opium. We are not sure that this is necessary, but it is at least worthy of trial. The usual quinine dosage is given and the method of administration does not vary from that employed in the non-pregnant.

Dr. E. A. Ficklen: The danger of administering quinine in pregnancy is possibly exaggerated, as Dr. King has stated. Personally, I have never seen labor induced by quinine, although I have known of two instances where very large doses were taken between the sixth and eighth weeks of pregnancy. For this reason I believe that it can be given almost with impunity where malaria occurs in pregnant women, yet I would state that the precaution of guarding the dosage with opium is a wise one.

I should like to ask Dr. Bethea whether he regards quinine as a proficient prophylaxis against malaria. Several manufacturing houses have been using the articles which appeared in foreign journals, on the inadequacy of quinine as a prophylaxis, as propaganda for their products.

THE NUT.

By T. J. DIMITRY, M. D., with Apology to Walt Mason.

I firmly hold that I am sane, there are no weevels in my brain; no bats nor bugs are wont to chase within my dome in endless race. But still, unfortunate I dwell and worry in my padded cell. I read and tried to understand a the'ry coined in Hunnish land. I read this the'ry thru and thru; the more I read the less I knew. I thought it over day by day; I dreamed it when I hit the hay. I asked one of them who ought to know, the simple truth to me to show. The laboratory workers said; this the'ry simply puts to bed all others for immunity. Tho' how this is I cannot see, a few, some

wise professors, wailed that this hypothesis had failed like things upheld by Hunnish brag, and then my brain began to lag. A certain friend in pity cried, for heaven's sake let Ehrlich slide; it takes a Hun to understand a thing so surely propagand(a); I replied, "Then I cannot dodge this guessing match of Hun hodgepodge; for I'm bound to find a clew to Ehrlich's curves before I'm thru." And this I did; for it now seems that Ehrlich shed his side chain beans in emulation of the group who brewed the propaganda soup. I thought the questions day by day and dreamed them when I hit the hay. They said I had a raving spell; and put me in this padded cell. The children come when school is o'er and feed me peanuts through the door, and rubbernecks come by and say "Alas, for this poor stricken jay;" The keepers murmer to each guest, don't mention Ehrlich we request, for he may rise in frenzied rage and tear the padding from the cage. I still maintain that I am right and willing to keep up the fight; immunity is hazy, its nomenclature is sleazy, a few sane and many crazy.

ABSTRACTS, EXTRACTS AND MISCELLANY.

Epilepsy a Symptom of Splanchnoptosis. The fact that what is usually called epilepsy is constantly associated with displacements of the abdominal organs has now been demonstrated in 810 consecutive cases of the writer. This demonstration has consisted of, first, the clinical history and, second, the physical examination of the patient; third, the serial X-ray study, and, finally, in the majority, the surgical exploration of the abdominal cavity. This record, with the additional significant fact that the visceral condition is always antecedent to the convulsion phenomena, as shown by the earlier development of constipation, and the absence of both hereditary factors and extra-abdominal lesions, forces the conclusion that so called epilepsy occurs only as a symptom of splanchnoptosis. This conclusion is further confirmed by these observations and the daily observation of general practitioners to the effect that epilespy is always associated with constipation; that the epilepsy is worse when the constipation is worse; and that the most effective, ready-at-hand relief from seizures is by laxatives. It was this fact, confirmed by surgical experience, that prompted

writing his first article under the title of "Constipation and Epilepsy" and upon which he based a second article entitled "The Probable Cause and Logical Treatment of Epilepsy." Later experience has shown that constipation while antecedent to and associated with the seizures in these cases is, like the seizures themselves, a symptom of splanchnoptosis. The mere fact that many people who have splanchnoptosis do not have so-called epilepsy does not invalidate the observed and here recorded fact that eight hundred and ten people who did have epilepsy likewise had splanchnoptosis and that the development of the splanchnoptosis was antecedent to the epilepsy. The explanation of this difference will doubtless sometimes be furnished through biochemic research. The basic fact is, that epilepsy is always associatel with and is therefore a symptom of splanchnoptosis.

This basic fact is susceptible of verification at the hands of every practitioner who sees these cases and especially by every institution now acting in a custodial capacity to large groups of these unfortunates. To begin with, the cases must be *really* examined. This means that a thorough history must be taken. Then the patient must be stripped. The physical inventory should be carefully made, front and back, from head to foot. Special search should be made for possible foci of infection as ancillary factors in the case. The abdomen should be gone over, first, with the patient on his back; next, with him erect. A very little practice with abdominal percussion will enable the physician to detect the gastric note, the cecal note, the transverse-colonic note, sometimes the sigmoidal note. With the patient on his back, these notes will generally be found approximately in their normal positions, with the possible exception of the cecal note which in these cases will always be found low in the right lower quadrant, sometimes as low as Poupart's ligament. Now stand the patients up and it will be found that all of these notes, these separate areas of resonance, will have become obscured, more or less blended, by gravitation into the lower zone of the abdomen. The only note that does not thus migrate downward is that of the cardia which, however, is generally farther around to the left and toward the back. In other words, the viscera will have dropped. This examination is all very easy, very important.

Then all cases should be given an X-ray study. When done right it is very clarifying; when done wrong it is very misleading.

It is done approximately right when the following rules are observed: (1) The patient should be free from all laxatives or enemas for a tleast twenty-four hours before taking the barium meal; (2) the barium meal should be taken at 9 o'clock in the morning; (3) the first picture, to show the stomach and beginning duodenal transit, should be taken ten minutes later—*with the patient upright;* (4) the second picture, to show conditions at the ileo-cecal juncture, should be taken at 3 o'clock in the afternoon—*with the patient prone;* (5) the third picture, to show the condition and position of the colon, should be taken at 9 o'clock the next morning—*with the patient upright.* These pictures are essential; others may be taken or not according to the indications of the individual case.

The ease with which all of this can be done, and the importance of the facts thus elicted, make such examination of these cases an imperative duty not only for individual practitioners but for institutions, hence, (1) All institutions for epileptics should be provided with a well-equipped, competent and liberally supported roentgenologic service. (2) There should be a roentgenologic survey of the entire epileptic population of all public institutions for the purpose of determining the condition of the abdominal viscera. (3) The diagnosis should be individualized in each case with reference, first, to visceral causative factors; and, second, to available treatment with the object and understanding that the treatment in all cases should be directed to overcoming such visceral conditions either by medical and hygienic treatment or, when necessary, by surgical restitution of the parts.

The same rules apply, with possibly greater force, to all hospitals for the insane,—but that is another story.—*Chas. A. L. Reed, paper before Southern Medical Association, 1920.*

Syphilitic Chancre of the Tonsil in the Shape of a Polypus.—Among the numerous cases of chancre on the tonsils that have come under his observation in six months, July to December, 1919, Dr. Geo. Portmann mentions that of a patient who had rather a large polypus growth on his left tonsil on a level with a superficial ulceration of this organ. The two columns and the adjoining part were of a crimson color. To the touch the tonsil was hard except on a level with the polypus growth. Big carotid ganglion on the left, sluggish, moving under the finger, concomitant papulous roseola. Test of Bordet-Wassermann, positive.

This polypus variety of chancre on the tonsil is to be added to different admitted types; erosive, ulcerous, anginal, diphtheritic, gangrenous and epitheliomatous.

With regard to him the writer insists on the encircling of the primary accident, no matter what its shape may be, by the adjoining tissues, which are more or less tumefied but are always of a characteristic crimson color. According to him this special aspect is a symptom of importance, a sign of probability as important as the hardening of the base or adenopathy.

Lastly he draws attention to the facility with which the secondary manifestations are produced on a level with the organ first affected. When the tonsil has been the entry of syphilitic infection, it seems to become the weak point of the organism, the seat of election of the first mucous spots which often appear even when the chancre is not completely cured.—*Paris Médical.*

The National Anesthesia Research Society has adopted a uniform chart for use in all hospitals. After studying and comparing charts from all leading hospitals and clinics of the United States a committee devised the chart which is considered to embrace all essential points in the administration of an anesthetic and leaves such a record as will speedily show the surgeon, anesthetist and nurse the history of their case.

This chart has been designed to show what happens to the patient and how he reacts to the various factors that bear upon his case. Detailed records of this nature have been all too few. Blood pressure, respiration, the color of the skin and the reaction of the pupil are of prime importance and the requirement of such records will stimulate better work on the part of all. Such records, systematically kept, will yield information never before available to the medical and surgical world. In the interest of such information, the N. A. R. S. will print and distribute at cost this uniform chart to all hospitals using it.—*Bulletin National Anesthesia Research Society.*

Some Rare Localizations of Muscular and Articular Rheumatism.—Having lately observed unusual localizations of rheumatism which could easily give rise to error in diagnosis, Mr. Janowski, physician of the Infant-Jesus Hospital of Varsovia points them out in a practical manner in an article published in the Paris Medical, of which we reproduce the most essential phases.

(A) Muscular Rheumatism.

The number of different localizations in muscular rheumatism, according to the author, has considerably increased since the war, which he thinks are due to the prolonged stay in the trenches, to the protracted marches and to traumatism due to heat and mechanical injuries, to which the soldiers were particularly exposed. A special space must first be accorded to the rheumatism of the muscles and tendons of the lower limbs, but these affections are too well known for Mr. Janowski to dwell upon them. He on the contrary, points to a considerable number of Officers whom he has seen suffering with muscular rheumatism of the thoracic region, too often mistaken for pleurisy. He notes, as a differential diagnosis, the absence of frictional sounds, of cough, and the particular sensibility of intercostal muscles, notably in the superior interspaces and at times, an inflammatory oedema of the skin with an acute sensibility at the costal-cartilage junction in the second and third ribs. The author recalls a case of thoracic rheumatism which proved difficult to diagnose, and, here, he remarks that in these cases the muscular sensibility brings about a lessening of the respiratory murmer which, in itself, may lead into error. It is therefore more essential to palpate very carefully the thorax of patients who complain of pain in this region, before attempting the habitual diagnosis of pleurisy or even pneumonia.

(B) Articular Rheumatism.

Mr. Janowski draws attention to three points of localization: The first is the rheumatism of the sacro-iliac synarthrosis (immovable joint) of which he has observed but two cases in 24 years, but lately, he has seen 8 cases in a few years. The wrong diagnosis of sciatica, or even osteomyelitis of the ilium had, at times, been made, so intense had been the pain. Secondly comes the rheumatism of the intervertebrate articulations. He relates a case involving the four vertebræ of the neck where the pain was so extensive as to point to a basal meningitis, others, localized in the dorsal vertebrae, would simulate Pott's Disease or a luetal infection in these regions, or even cancer of the oesophagus. Thirdly, the author cites the rheumatic inflammation of the costovertebral joints, generally at the level of the four or five lower

ones. There, again, we may think of pleurisy, of pyelitis, even of para nephritis. But the sensibility in that region is increased by the movement of the trunk when the pelvis is at rest, and a careful palpation will localize the maximum painful region to the vertebrae just mentioned. The palpation of adjacent vertebrae may, at times, be also painful. In all of these manifestations rather uncommon in rheumatism, the administration of the salicylates is at times the best means of clearing up a difficult diagnosis.

Translated from the (*Monde Médical*) by DR. C. M. MENVILLE, Houma, La.

NEWS AND COMMENT

THE ORLEANS PARISH MEDICAL SOCIETY elected the following officers for the year 1921 at the regular annual election held December 11, 1920:

Dr. S. M. Blackshear, president; Dr. W. H. Block, 1st vice-president; Dr. W. H. Harris, 2nd vice-president; Dr. F. R. Gomila, 3rd vice-president; Dr. J. A. Lanford, treasurer; Dr. Elizabeth Bass, secretary; Dr. S. C. Jamison, librarian.

As additional members of the Board of Directors: Dr. E. A. Ficklen, Dr. F. Chalaron, and Dr. F. M. Johns.

Delegates to Louisiana State Medical Society.—(1920-1921) Dr. G. S. Bel, Dr. S. M. Blackshear, Dr. A. Eustis, Dr. W. H. Seemann, Dr. F. M. Johns, Dr. E. L. Leckert, Dr. L. H. Landry, Dr. W. H. Knolle. (1921-1922) Dr. H. W. Kostmayer, Dr. W. W. Leake, Dr. W. D. Phillips, Dr. T. J. Dimitry, Dr. R. Bernhard, Dr. F. Chalaron, Dr. H. E. Bernadas, Dr. H. P. Jones, Dr. E. A. Ficklen, Dr. E. W. Mahler.

THE OPHTHALMOLOGICAL AND OTOLARYNGOLOGICAL CLUB OF THE ORLEANS PARISH MEDICAL SOCIETY met at the domicile of the Society on December 8th. The meeting was well attended, including a number of visiting physicians.

A healthy condition of the treasury was shown in that there are funds sufficient to carry on the affairs of the organization without calling for the usual yearly dues. All the old officers were

again elected. Dr. Marcus Feingold, chairman; Dr. Theodore Dimitry, vice-chairman, Dr. Patton, secretary.

Very instructive and interesting cases were presented by Dr. Folse, who is a member of the intern staff of the Charity Hospital; Dr. A. Weil; Dr. Crebbin; Dr. Whitmire; Dr. Bahn and Dr. Dimitry. The cases presented were much discussed and the evening spent was scientifically pleasing.

Recapitulation of Venereal Disease Cases.—This recapitulation issued by the Surgeon General of the Army November 23, 1920, supports the averages for 10,000 similar cases of the preceding twelve months showing that the majority of venereal infections (68%) are not contracted in houses of prostitution, that money is not a consideration in the majority of cases (61%); that alcohol was reported as a factor in only 17% of those cases and that communities remote from militay stations were sources of infections in 38% of those records.

Non-Beverage Alcohol Rule Changed.—Administrative officers at the Federal Prohibition Department at Washington advise that all permits to manufacture and use intoxicating liquor for non-beverage purposes should be renewed by filing applications for renewal with state prohibition directors. These permits must be renewed before the end of the year, or they will automatically expire and the Department at Washington frankly states that it will be a physical impossibility to renew thousands of permits during the last month of the year, with its limited force. Under the new rule, issued on October 15, the duration of permits to purchase was cut from 90 to 30 days.

Increase in Annual Dues of the American Medical Association.—The House of Delegates of the American Medical Association acted on a proposition submitted by the Board of Trustees to increase the annual Fellowship dues, modifying the by-laws so that an increase from $5.00 to $6.00 was made, effective for 1921. This increase has been deemed necessary owing to the great advance in the cost of material and labor in the printing trade.

Tuberculosis Association Offers Prize Cup.—The National

Tuberculosis Association will award an intercity cup to the city enrolling the largest number of knight banners in the modern health crusade in ratio to the school enrollment for 1921. Another silver cup known as the interstate cup is awarded to the state having the largest number of crusaders. This was recently won by Iowa.

NAVAL AWARD TO PRESIDENT OF THE A. M. A..—The Navy Distinguished Service Medal for meritorious service during the war has been awarded to Admiral M. C. Braisted, the Surgeon General of the United States Navy.

SECTION FOR ANESTHETISTS IN THE A. M. A. IN SIGHT.—It is expected that formal action will be taken at the next meeting of the A. M. A. towards recognition of anesthetists by granting them a section in the Association. This recognition has been sought for several years and no better news can come to the first line workers in this specialty than the announcement above, as it will do much to establish the specialty in a professional way.

AUTO DEATHS IN NEW YORK IN 1920.—Motor vehicle accidents in New York City total 517 for the first nine months of the year. Included in the killings for this period were 262 children under 13 years of age. It is becoming a public health question, even from the little available data regarding the number of fatalties in the large cities in the United States, as it appears now that more people are dying from avoidable automobile accidents than public health problems.

CHILDREN IN INDUSTRIES.—The U. S. Department of Labor, Children's Bureau, Washington, D. C., reporting on the action of the permanent committee on standards of physical fitness for children entering upon employment, fixes in a general recommendation a minimum age of 16 years for entrance into industry on the ground that the period of pubescence is not completed until the 16th year. A recommendation is also made that no child should be allowed to go to work until he has had a complete physical examination and has been declared physically fit for the particular occupation which he is about to take up. Importance is laid on the desirability of having all medical men familiarize

themselves with the work of the Children's Bureau. The report of the committee will be sent to interested persons throughout the country for critcism before being printed.

NEW ADMIRAL OF THE NAVY.—Rear Admiral Stitt, at present Director of the U. S. Naval Medical School, has been appointed Surgeon General of the Navy to succeed Rear Admiral Braisted who is retiring at his own urgent request. Admiral Stitt has for thirty-one years given service in the Navy and his appointment will have the full support of the medical profession throughout the country.

U. S. CIVIL SERVICE EXAMINATIONS.—The U. S. Civil Service Commission announces open competitive examinations for the positions listed below. Vacancies in the Bureau of War Risk Insurance, Washington, D. C., at the salaries indicated, and in positions requiring similar qualifications, at higher or lower salaries, will be filled from the examinations. The entrance salary for some of the positions will depend upon the qualifications of the appointee as shown in the examination. Applications must be filed under Form 1312 with the Civil Service Commission, Washington, D. C. The positions to be filled are as follows: Medical Referee, $3,600 to $4,000 a year; Assistant Medical Referee, $3,000 a year; Chief, Section of Medical Referees, $4,000 to $6,000 a year. Applications for the positions of Roentgenologist, Associate, Assistant and Junior Roentgenologist will be received until April 5, 1921. The applications for the other positions must be on file by January 11.

THE SOUTHERN MEDICAL ASSOCIATION.—This Association held its annual session in Louisville, Kentucky, from November 15 to 18, with successful outcome. The sections were well attended and interesting and the scientific exhibits were an especial feature. One individual exhibit of unusual merit was that of Dr. Kenneth M. Lynch, of Charleston, which was awarded the first prize. Many other prizes and certificates were awarded. The entertainment feature was well conducted and enjoyable. Dinners at which alumni of various colleges were seated at tables together encouraged a genial spirit of fraternity.

GOVERNMENT NOTES.—During the past year the Medical Department of the Army abandoned 21 of its 30 general hospitals, seven of which were turned over to the U. S. Public Health Service and the others closed.

The Surgeon General's Office from compiled statistics on the cost of venereal diseases in the army shows that during 1919 venereal diseases caused a loss of 1,923,420 days of duty among the troops. Since the estimated cost of such absences is at the rate of $7 a day, the direct loss to the army from these diseases was $13,463,940.

Surgeon General Cumming has announced the completion of plans for the treatment of 15,000 tuberculosis patients in the Public Health Service hospitals. A committee of tuberculosis specialists and members of the Public Health Service will visit the special hospitals to study the prevailing conditions with a view to the standardization of the methods of treatment. Surgeon General Ireland has issued orders that the complement fixation test be uniformly employed in the military service for the diagnosis of tuberculosis.

FRENCH NEUROLOGY CONGRESS.—The next congress of alienists and neurologists of French speaking countries will convene at Luxembourg in 1921. The three topics appointed for discussion are the consciousness of the morbid condition in psychopathies; simulation of mental disease and traumatic epilepsy.

HOTEL DIEU APPOINTS STAFF.—By the appointment of a staff of 35 visiting physicians and surgeons, Hotel Dieu, New Orleans, has made an important change in its policy. Dr. Marion Souchon was elected president of the staff, and Dr. H. W. E. Walther, Secretary.

OREGON DEFEATS ANTIVACCINATION BILL.—The referendum abolishing compulsory vaccination which was voted on in Oregon at the recent election was defeated two to one, the vote for the abolition of compulsory vaccination being about 50,000 and the vote against it over 110,000. The campaign against the measure was carried on by a joint committee of physicians and laymen.

INTERNATIONAL TUBERCULOSIS SOCIETY FORMED.—A permanent

international society for the prevention of tuberculosis, composed of representatives of all nations signatory to the League of Nations covenant and of the United States, was formed October 19, at an international antituberculosis conference in Paris. Sir Robert William Philip, Edinburgh, is the president of the Society, the first meeting of which will be held in the fall of 1921 in London.

Electrical Purification of Milk.—According to the *British Medical Journal* the Medical Research Council of England has recently perfected a method of sterilizing milk by passing through it alternating currents of electricity, the milk being kept meanwhile at a temperature of 144 to 150 degrees. At these low temperatures the injurious effects resulting from the sterilization of the milk at higher temperatures are not produced. After electrolization the milk is cooled. Its taste is not changed and treated in this method it can be kept until the fourth day without souring. While all bacteria are not destroyed, the number is reduced to 99.9 per cent, or one in one thousand. The colon and tubercle bacilli are found to be uniformly killed by this electrical treatment. If on further study of this method it is found that the vitamines are not destroyed and no other injurious effect produced upon the milk, its general introduction may become the means of greatly reducing the death-rate among infants and children.

International Public Health Journal.—The first number of the new *International Health Journal* is now out, issued by the General Medical Department of the League of Red Cross Societies at Geneva, Switzerland. This journal will be devoted almost entirely to public health work and preventive medicine and will be published every two months in four languages, French, English, Italian and Spanish. The editor is Dr. T. R. Brown, of Baltimore, and associate editor is Dr. W. F. Francis of Montreal.

St. Louis University Centennial.—A Centennial Endowment Fund has been started by the St. Louis University in the hope of raising $3,000,000 in commemoration of the founding of the institution. The anniversary really occurred in 1918 but on account of the war the celebration was postponed. St. Louis University holds the distinction of having established in the Louisiana Purchase tract the first colleges of medicine, dentistry and law, as well

as commerce. The largest part of the amount raised is to be devoted to medicine and dentistry in the erection of new buildings, clinics and laboratories.

JEWISH WAR SUFFERERS TO HAVE MEDICAL UNIT OVERSEAS.—The Joint Distribution Committee of the American Funds for Jewish War Sufferers makes the announcement that a medical unit will be sent overseas next month to fight disease in Eastern Europe. The Medical Advisor of the Committee, Dr. Harry Plotz, of the Mount Sinai Hospital, will be in charge of the work and will head the unit which is to be made up of physicians with military experience. The sum of $2,000,000 has been asked for as an initial outlay for the first year to cover expenses of payment of medical personnel, purchase of medical supplies, and other necessary items. Dr. Plotz will receive applications for volunteers.

MORE COFFEE DRUNK SINCE PROHIBITION.—The Secretary of the National Coffee Roasters' Association is authority for the statement that sixteen billions more cups of coffee have been consumed in 1920 than during the entire year of 1919. The increasd consumption is attributed to prohibition.

THE AMERICAN COLLEGE OF SURGEONS is organizing state meetings of the Clinical Congress of Surgeons which hold meetings arranged on a plan similar to that of the Clinical Congress. Meetings have already been held in a number of states. The Louisiana branch will hold a meeting on the 10th or 11th of January, 1921. The program will include clinical meetings from 9 A. M. until 1 P. M. Monday and Tuesday, January 10 and 11. At 2.30 P. M. there will be a resumé of the morning clinics and a session on each day, in which distinguished visitors will participate. Monday and Tuesday at 8 P. M., meetings will be held intended especially to interest the public at large. These meetings elsewhere have been well attended and it is hoped that these will be equally so. The meeting will be conducted under the auspices of the fellows of the American College of Surgeons in Louisiana, the invitations to be extended especially to the members of the College in Arkansas and Mississippi, which states, it is expected, will hereafter reciprocate with us. Dr. Gessner is Chairman of the Committee to look after

the clinical portion of the program and it co-operating with the Committee of arrangements, consisting of Drs. Miller, Dupaquier, Kohlman and Oechsner. At the last meeting in Montreal Dr. Dimitry, of New Orleans and Dr. Graves, of Monroe, were elected fellows of the college, and Dr. F. W. Parham was elected member of the Board of Regents.

At the Annual Meeting of St. Tammany Parish Medical Society held Dec. 9, 1920, the following officers were elected for 1921: President, Dr. A. G. Maylie; Vice-President, Dr. N. M. Hebert; Secty-Treas., Dr. H. D Bulloch; Delegate to La. State Medical Society, Dr. J. F. Buquoi; Alternate Delegate, Dr. H. D. Bulloch. The aforenamed are the 1920 officers and were all re-elected. The installation will take place at the annual banquet to be given on January 13, 1921.

New Health Board Appointed.—The following members comprise the new health board for the parish of Orleans: Dr. John T. Callan, superintendent, vice Dr. W. H. Robin, resigned; Dr. E. F. Bacon, chief medical inspector, vice Dr. Paul J. Gelpi, resigned; Dr. P. T. Talbot, medical inspector; Dr. H. G. Patterson, chief food inspector; Dr. J. M. Koelle, inspector; M. J. Lacy, superintendent of the department of promotion and cleanliness; Cassius M. Clay, chemist, vice Dr. A. L. Metz, resigned. The two citizen members of the board are Wm. A. Coker, and George H. Conrad. The superintendent has appointed Dr. E. L. Leckert as secretary-treasurer.

Infant Mortality in Europe.—When the war broke out the movement for the preservation of infant life was progressing rapidly, and it is gratifying to know that even though the progress has been somewhat checked, most of the attained results have been maintained. It is generally believed that tiny babies have suffered most from the war, but this is not so. Children from 2 to 5 years show an increased mortality, although less so than old people, but the breast-fed infants are the least to suffer from the misery of war.

State Board of Health of Minnesota Needs Epidemiologists.—A large amount of field work is to be done throughout the state of Minnesota and the Division of Preventable Diseases

of the Minnesota State Board of Health, University Campus, Minneapolis, desires to get in communication with men of suitable training competent for the work which is under way. A salary of $3000 will be paid, more or less, according to training and experience of applicants. The extent of the field work may be judged from the fact that in 1918 there were 260 and in 1919, 328 field investigators.

PERSONALS.—At the Centennial celebration of the College of Medicine of the University of Cincinnati, the degree of Doctor of Science was awarded to Dr. C. C. Bass, Director of the Laboratories of Clinical and Tropical Medicine of Tulane University.

Dr. J. T. O'Ferrall announces the opening of a department of Physiotherapy, (physical education and orthopedic massage), in connection with his office. Mrs. Helen J. Cunningham will be in charge of the department.

Dr. Val H. Fuchs has returned from a two week's visit to the East.

REMOVALS.—Dr. Frank R. Gomila has moved to Room 516, Macheca Building, from 504.

Dr. Andrew Conrad Achee has moved from Port Eads, La. to 6024 Camp St., New Orleans.

BULLETIN OF THE LOUISIANA STATE MEDICAL SOCIETY.

By P. T. TALBOT, M. D., Secy-Treas.

The following is submitted for the information of the Chairman and personnel of each Committee, in order that they may have ample time in which to accomplish something in their respective field, before the Annual Meeting of the Society, April 19th, 20th and 21st, 1921:

STANDING COMMITTEES

Committee on Scientific Work.—Dr. P. T. Talbot, chairman; Dr. A. Henriques, New Orleans; Dr. S. M. Blackshear, New Orleans.

Committee on Public Policy and Legislation.—Dr. Clarence

Pierson, chairman, Alexandria; Dr. Homer Dupuy, New Orleans; Dr. E. W. Mahler, New Orleans; Dr. P. T. Talbot, New Orleans; Dr. I. Cohn, New Orleans.

Committee on Publication.—Dr. P. T. Talbot, chairman, New Orleans; Dr. J. E. Knighton, Shreveport; Dr. Amédée Granger, New Orleans.

Budget and Finance Committee.—Dr. H. W. E. Walther, chairman, New Orleans; Dr. E. W. Mahler New Orleans; Dr. T. A. Roy, Mansura; Dr. W. H. Knolle, New Orleans; Dr. E. M. Ellis, Crowley.

Committee on Medical Education.—Dr. W. H. Knolle, chairman, New Orleans; Dr. J. E. Knighton, Shreveport; Dr. C. W. Allen, New Orleans.

Committee on Memorial.—Dr. W. H. Seeman, chairman, New Orleans; Dr. J. A. O'Hara, New Orleans; Dr. J. N. Thomas, Pineville; Dr. A. E. Fossier, New Orleans; Dr. R. G. Holcombe, Lake Charles.

Committee on Medical Defense.—Dr. P. T. Talbot, chairman, New Orleans; Dr. J. C. Willis, Shreveport; Dr. Hy. Leidenheimer, New Orleans.

Special Committees

Committee on Public Health.—Dr. T. A. Roy, chairman, Mansura; Dr. Louis Abramson, Shreveport; Dr. M. W. Swords, New Orleans.

Committee on Health and Public Instruction.—Dr. R. B. Wallace, chairman, Alexandria; Dr. R. Bernhard, New Orleans; Dr. R. O. Simmons, Alexandria; Dr. P. Graffagnino, New Orleans.

Committee on Cancer Research.—Dr. W. H. Harris, chairman, New Orleans; Dr. J. C. Willis, Shreveport; Dr. A. Henriques, New Orleans.

Committee on Hospitals.—Dr. J. W. Newman, chairman, New Orleans; Dr. C. A. Weis, Baton Rouge; Dr. R. B. Harrison, New Orleans; Dr. L. J. Menville, New Orleans.

Committee on Hospital Standardization.—Dr. R. O. Simmons, chairman, Alexandria; Dr. J. C. Willis, Shreveport; Dr. H. W. Kostmayer, New Orleans; Dr. Louis Abramson, Shreveport; Dr. J. A. Estopinal, New Orleans; Dr. C. P. Gray, Monroe; Dr. E W. Mahler, New Orleans.

Committee on Industrial and Economic Relations to Medicine.—Dr. I. Cohn, chairman, New Orleans; Dr. A. E. Fossier, New Orleans; Dr. W. H. Block, New Orleans; Dr. Geo. F. Roeling, New Orleans.

Committee on Resolutions.—Dr. T. A. Roy, chairman, Mansura; Dr. B. W. Smith, Franklin; Dr. Louis Abramson, Shreveport.

Committee on Health Problems in Education.—Dr. A. A. Herold, chairman, Shreveport; Dr. G. C. Antony, Tioga; Dr. A. L. Whitmire, New Orleans; Dr. H. P. St. Martin, Houma; Dr. S. L. White, Ruston.

Committee to study Drug Addiction.—Dr. W. H. Seemann, chairman, New Orleans; Hr. Hy. Daspit, New Orleans; Dr. R. M. Van Wart, New Orleans; Dr. A. L. Levin, New Orleans; Dr. C. V. Unsworth, New Orleans.

The Society will expect a report from the Chairman of each Committee, on their respective workings and accomplishments during the year, to be read at the Annual Meeting in New Orleans.

Dues for the year 1921, Louisiana State Medical Society, are now being accepted in the office of the Society, 1551 Canal St., New Orleans, La. If your parish *is* organized, send your dues in to the Secretary or Treasurer of your Parish Society. If you Parish is *not* organized, kindly make check payable to the Louisiana State Medical Society, in amount $4.00, and mail direct to the office of the Secretary of the State Society.

The Annual Meeting of the Society, 1921, promises to be one of unusual benefit and interest to our members.

BOOK REVIEWS AND NOTICES

All new publications sent to the JOURNAL *will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the* JOURNAL *to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Principles and Practice of Physical Diagnosis. By John C. da Costa, Jr., M. D. W. B. Saunders & Co., 1919.

The name, Da Costa, seems properly to fit the title-page of a book on Physical Diagnosis. The subject matter is a family tradition of the author. Everywhere there is evidence of the most complete acquaintance with the literature of the subject. The author mentions by name many of those who have made classic contributions to the subject. However, one is disappointed in a book of six hundred pages designed for undergraduate students and practitioners to find no specific reference bibliography whatever.

Such a tendency in the instruction of students is to be deplored. The student only too often fails to arrive at a realization of the debt he owes to those who have gone before him, in medicine. Surely a book like this one could be expected to contain a bibliography of some sort.

In the chapter on rales and their classification, the author has departed from the excellent and clear anatomic classification of J. M. Da Costa who mentions three categories—(1) Bronchial, (2) Vesicular, (3) Cavity.

The younger Da Costa in this volume endeavors to put forth his own classification of rales, based partly on anatomic and partly on auditory qualities. This mixing of main headings has no justification and serves no purpose excepting to add to the confusion already existing on the subject. In the main, the book is valuable, and the author deserves commendation for having brought the subject matter up to the day.

J. BIRNEY GUTHRIE.

Mind and its Disorders. By W. H. Stoddart, M. D., Lond., F. R. C. P. H. K. Lewis & Co., London.

The present work covers 572 pages of text and over 80 illustrations and diagrams.

The book is divided into three sections. In the first, which deals with normal psychology, an attempt is made to correlate mental processes with their physical substrata in the nervous system. In the second section the psychology of the insane is treated in a similar manner. In the third section mental diseases are presented with a classification which though not entirely Kraepelinian is almost as serviceable.

The nervous psychoneurosis, toxic insanities and organic insanities are discussed, fully covering some 22 chapters. Then follows a chapter on idiocy and imbecility with the presentation of Binet-Simon tests and their interpretations.

The author goes more into the details of treatment of mental disorders than will be found in most other works. Each disorder is followed by suggestions for its individual management and treatment and besides there is a chapter on the general treatment of mental disorders.

Space does not permit further mention of the many other good features of this work. Suffice it to say that this book contains more valuable information to the student and practitioner than any other work on the subject. CAZENAVETTE.

Surgical Shock and the Shockless Operation through Anoci-Association. By George W. Crile, M. D. and William E. Lower, M. D. Edited by Amy F. Rowland, B. S. W. B. Saunders Company, Philadelphia and London, 1920.

This book should need no introduction to the medical profession and those of us who enjoyed and profited by the reading of the first edition will find much additional evidence and argument in support of Dr. Crile's theories.

While some may still dispute these theories they must all admit that no other skilled and trained investigator has given such untiring study and serious consideration to this subject. Added to his vast clinical and laboratory experience we now have his observations and studies made on the battlefield and in the field hospitals of France where a vast number of cases of mutilation in every conceivable form were studied. He was thus able to observe on our wounded fellowman conditions which for humanitarian reasons were never attempted on laboratory animals. "Our researches on animals which have extended through many years, have included experiments covering every cause of shock and exhaustion except those which are impracticable on account of their cruelty. This war, however, has provided ample human material to make good the deficiencies in laboratory researches caused by due consideration for the suffering of animals. The author gives a comprehensive review of the researches on shock, but without reviewing the theories, presenting it in his usual convincing, elegant and fascinating style.

Any surgeon who claims to be competent and well equipped whether he reads Dr. Crile's book or not must consciously or unconsciously adopt the principles laid down by this great surgeon.

CARROLL W. ALLEN.

The Microbiology and Microanalysis of Foods. By Albert Schneider, M. D., Ph. D. P. Blakinston's Son & Co., Philadelphia.

This volume contains much valuable information on the various phases of food decomposition, of the organisms concerned in food spoilage, of the foods especially liable to be harmful or dangerous for human consumption, and of the food adulterants.

The text is clear and concise. The book was primarily intended for the use of army dietitians, and food examiners. It is equally as well suited for the needs of students in universities and colleges where special instruction in the analysis of food and drugs, where courses in dietetics, in home economics, in food testing, and in food decomposition are given.

Many excellent plates are found throughout the book showing the

great variety of vegetable cells, vegetable tissues, crystals, yeasts, molds, and bacteria. One chapter is devoted to general and special micro-analytical methods, these include the organoleptic tests, direct microscopical examinations and indirect methods such as plate and tube culture and feeding tests. The ratings of food products are based on years of practical experience by the author and are most instructive. The legal standards of purity are those accepted by the Bureau of Chemistry of the U. S. Department of Agriculture. A diet schedule by Dr. Glen J. Sipes covering analysis of foods in the natural state, and showing the percentage each article contains of heat, strength, nerve, water, and waste products represents the latest conclusions in this line.

ELIZABETH BASS.

Clinical Microscopy and Chemistry. By F. A. McJunkin, M. A., M. D. W. B. Saunders Co., Philadelphia and London.

The author presents this small volume in order to bring to the attention of the student the clinical application of chemical and biologic methods and to present them from the laboratory point of view. The contents of the book include study of the blood, sputum, serous fluids and exudates, feces, urine, and gastric contents. One chapter is devoted to hystologic and autopsy technic.

The book is suitable for the physician who has little time for general reading.

ELIZABETH BASS.

Regional Anesthesia. By B. Sherwood-Dunn, M. D. F. A. Davis Co., Philadelphia, 1920.

This book is said by its author to summarize the writings of Victor Pauchet, P. Sourdat and J. Labouré as well as himself.

An attempt is made to cover the entire field of local anesthesia, but it is entirely too brief and superficial. Local anesthesia when applied to major surgery must be thorough in all its details to insure success; the technique imperfectly, carelessly or superficially carried out must lead to failure. Any description of this technic should be so ample and thorough that the beginner or student can find in it a reliable and safe guide. If this is not the case, the beginner who often fails of complete surgical anesthesia in his first attempt is unable to figure out where or why he failed.

Local anesthesia must offer to the patient a painless operation and when your technique fails to produce a surgical anesthesia it is the patient who suffers.

Most chapters in the book give the impression that they had not been finished. One who already knows may find the book a convenient guide but the beginner will be hopelessly lost; for instance in hernia the sac is not dealt with at all or any reference made to its sensibility. You are simply directed to inject along cord in the inguinal canal and no directions are given for the handling of the hernial contents. Most subjects are dealt with about as the above and while the experienced operator under local anesthesia may find it a convenient reference book, it will be disappointing to the beginner. Many of the illustrations are

excellent, particularly the anatomical cuts many of which will be found quite useful.

Some suggestions regarding the construction of syringes will be found helpful.

The use of the term mils in speaking of quantity of solution instead of c. c. may be puzzling. While the book has many shortcomings and one typographical error, there are several useful suggestions and much in it that will repay its careful reading by the experienced surgeon.

CARROLL W. ALLEN.

Medical Record Visiting List. Wm. Wood & Co., New York.

This visiting list and physician's diary for 1921 is up to its usual standard. Its contents have been revised and modernized which makes the booklet even more desirable than ever.

PUBLICATIONS RECEIVED

F. A. DAVIS CO., Philadelphia.

Bacteriology for Nurses, by Henry W. Cary, M. D.

Practical Massage and Corrective Exercises, by Hartvig Nissen.

Refraction and Motility of the Eye, by Ellice M. Alger, M. D., F. A. C. S.

Short Talks on Personal and Community Health, by Louis Lehrfeld, M. D.

WILLIAM WOOD & CO., New York.

Physiological Chemistry, Third edition, by Albert Mathews, Ph. D.

Text-Book of Histology, Sixth edition revised, by Frederick R. Bailey, A. M., M. D.

Steadman's Medical Dictionary, Sixth edition, by Thomas L. Steadman, A. M., M. D.

Text-Book of Nervous Diseases, Ninth edition, by Charles L. Dana, A. M., M. D., LL. D.

Medical Record Visiting List, 1921.

C. V. MOSBY CO., St. Louis.

Physiology and Biochemistry in Modern Medicine, Third edition, by J. J. R. Macleod, M. B.

THE MACMILLAN CO., New York.

The Story of the American Red Cross in Italy, by Charles M. Bakewell.

W. B. SAUNDERS CO., Philadelphia and London.

The Medical Clinics of North America, Vol. 4, No. 2, September, 1920.

Manual of Pathology, Fourth edition, by Guthrie McDonnell, M. D.

Basal Metabolic Rate Determination, by Walter M. Boothby, A. M., M. D., and Irene Sandiford, Ph. D.

The Endocrines, by Samuel W. Bandler, A. B., M. D., F. A. C. S.

Chemical Pathology, Fourth edition, by H. Gideon Wells, Ph. D., M. D.

Practical Preventive Medicine, by Mark F. Boyd, M. D., M. S., C. P. H.

Collected Papers of the Mayo Clinic, Vol. XI, 1919.

The Surgical Clinics of Chicago, October, 1920, Vol. 4, No. 3.

LEA & FEBIGER, Philadelphia and New York.

Treatment of Gonorrhea, by Norman Lumb, O. B. E.

Essentials of Histology, by Sir Edward S. Schafer, F. R. S.

Public Health and Hygiene, by William H. Park, M. D.

Syphilis; Diagnosis and Treatment, Second edition, by Lloyd Thompson, Ph. B., M. D.

Surgery; Principles and Practice, Second edition, by Astley P. C. Ashurst, A. B., M. D., F. A. C. S.

Principles of Biochemistry, by T. Brailsford Robertson, Ph. D., D. Sc.

CLOYD J. HEAD & CO., Chicago.

Maternitas, by Charles E. Paddock, M. D.

PAUL B. HOEBER, New York.

Diathermy in Medical and Surgical Practice, by Claude Saberton, M. D.

Diabetes, by Philip Horowitz, M. D.

Hygiene of Communicable Diseases, by Francis M. Munson, M. D.

P. BLAKISTON'S SON & CO., Philadelphia.

Practical Bacteriology, Blood Work and Animal Parasitology, Sixth edition revised and enlarged, by E. R. Stitt, A. B., Ph. G., M. D., Sc. D., LL. D.

A. F. PATTEE, Mt. Vernon, N. Y.

Practical Dietetics, by Alida F. Pattee

State Board Requirements in Dietetics and State Board Examination Questions.

WASHINGTON GOVERNMENT PRINTING OFFICE, Washington, D. C.

United States Naval Medical Bulletin, Vol. 14, No. 4, October, 1920.

Poison Ivy and Poison Sumac and Their Eradication, by C. V. Grant and A. A. Hansen.

The Control of Communicable Diseases.

Flat Foot and Other Foot Troubles.

Regulations for the Control of Arsphenamine, Neoarsphenamine, and Sodium Arsphenamine in the District of Columbia.

U. S. Department of Agriculture, Service and Regulatory Announcements. Supplement. Notices of Judgment Under the Food and Drugs Act. September 27, October 9, 19 and November 11.

Public Health Reports, Volume 35, Nos. 40, 41, 42, 43, 44, 45, 46, 47, 48.

PANAMA CANAL PRESS, Mount Hope, C. Z.

Report of the Health Department of the Panama Canal 1919.

MISCELLANEOUS:

Is Leprosy Increasing, by Frederick L. Hoffman, LL. D., F. S. S., F. A. S. A. An address.

National Health Insurance and the Medical Profession, by Frederick L. Hoffman, LL. D., F. S. S., F. A. S. A.

International Health Board, Sixth Annual Report, January 1, 1919, to December 31, 1919.

Johns Hopkins Hospital Reports (special volume) Investigation of the Central Nervous System. The Johns Hopkins Press, Baltimore.

Quarterly Bulletin Louisiana State Board of Health, Vol. XI, No. 3., September, 1920.

REPRINTS.

Allergy, Anaphylaxis and Immunity in Hay-Fever and Asthma; Diagnostic Tests in Hay-Fever and Asthma, by William Scheppegrell, A. M., M. D.

Report of Committee on Graduate Medical Education, by Louis B. Wilson, Chairman.

La Fossette Endolymphatique; Cellulite Mastoidienne Postérieure Latente; Le Fibro-tuberculome du Larynx; Mastoidite et mal de Pott sous-occipital, by G. Portmann, M. D.

Calomel and Syphilis, by Ferdinand Herb, M. D.

Case of Gundü Observed in Bahia Brazil, by Drs. Fernando Luz and Octavio Torres.

A Case Multiple Lesions in Leishmaniosis, by Octavio Torres, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for November, 1920.

CAUSE.	*White.*	*Colored.*	*Total.*
Typhoid Fever	1	2	3
Intermittent Fever (Malarial Cachexia)	1		1
Smallpox	1	2	3
Measles	1		1
Scarlet Fever			
Whooping Cough	1		1
Diphtheria and Croup	2	2	4
Influenza			
Cholera Nostras			
Pyemia and Septicemia	1	1	2
Tuberculosis	36	27	63
Cancer	28	12	40
Rheumatism and Gout		2	2
Diabetes	4	1	5
Alcoholism	1		1
Encephalitis and Meningitis	1	2	3
Locomotor Ataxia	4		4
Congestion, Hemorrhage and Softening of Brain	25	12	37
Paralysis	2	2	4
Convulsions of Infancy	2		2
Other Diseases of Infancy	14	10	24
Tetanus	1		1
Other Nervous Diseases	3	2	5
Heart Diseases	58	36	94
Bronchitis	2	2	4
Pneumonia and Broncho-Pneumonia	20	20	40
Other Respiratory Diseases	4		4
Ulcer of Stomach			
Other Diseases of the Stomach	2	1	3
Diarrhea, Dysentery and Enteritis	14	7	21
Hernia, Intestinal Obstruction	1	2	3
Cirrhosis of Liver	5	1	6
Other Diseases of the Liver	1	1	2
Simple Peritonitis	1		1
Appendicitis	6	2	8
Bright's Disease	26	8	34
Other Genito-Urinary Diseases	16	14	30
Puerperal Diseases	3	5	8
Senile Debility	1		1
Suicide	3		3
Injuries	30	17	47
All Other Causes	27	17	44
TOTAL	349	210	559

Still-born Children—White, 25; colored, 21; total, 46.

Population of City (estimated)—White, 290,000; colored, 110,000; total, 400,000.

Death Rate per 100 per annum for Month—White, 14.44; colored, 22.90; total, 16.77. Non-residents excluded, 14.73.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmosphere pressure 30.17
Mean temperature 58
Total precipitation ..... 3.93 inches
Prevailing direction of wind, northeast.